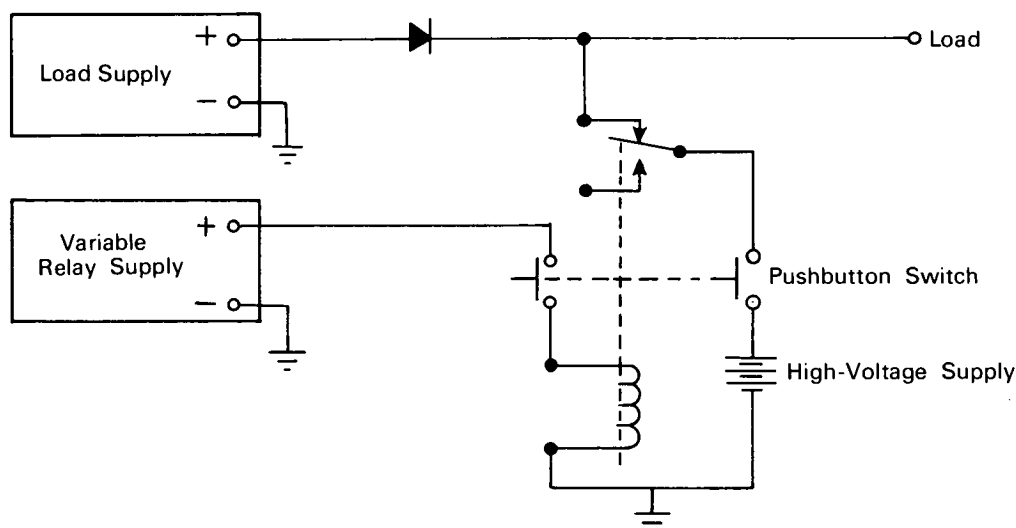


# NASA TECH BRIEF



NASA Tech Briefs are issued by the Technology Utilization Division to summarize specific technical innovations derived from the space program. Copies are available to the public from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia, 22151.

## Pulse Generator Permits Nondestructive Testing of Component Breakdown Voltage



**The problem:** Devising a nondestructive test for determining the breakdown voltage of transistors and other electronic components.

**The solution:** A simple relay circuit that permits application of low-energy, high-voltage microsecond pulses to the components under test.

**How it's done:** The high-voltage dc power supply is normally disconnected from the test component, represented as the load in the circuit diagram, by the two-section pushbutton. When the pushbutton is depressed, the high-voltage supply is connected to the load and power is simultaneously supplied to the relay coil from the variable supply. The voltage applied to the load is of microsecond duration, as it is determined only by the rise time required to energize the

relay coil and open its normally closed contact. The diode blocks the high voltage from the load supply.

**Note:** Inquiries concerning this innovation may be directed to:

Technology Utilization Officer  
Manned Spacecraft Center  
P.O. Box 1537  
Houston, Texas, 77001  
Reference: B65-10054

**Patent status:** NASA encourages commercial use of this innovation. No patent action is contemplated.

Source: Honeywell, Inc. under contract to  
Manned Spacecraft Center  
(MSC-122)

Category No. 01